

REMARKS

Applicants respectfully request further examination and reconsideration in view of the arguments set forth fully below. Claims 1-85 were previously pending in this Application. Within the Office Action, Claims 1-85 have been rejected. By the above amendments, Claims 1, 4, 6, 9, 10, 20, 23, 25, 28, 29, 34, 37, 39, 42, 43, 51, 54, 56, 59, 60, 66, 69, 71, 74, 75, 83, 84 and 85 have been amended and Claims 2, 3, 21, 22, 35, 36, 52, 53, 67 and 68 have been canceled. Accordingly, Claims 1, 4-20, 23-34, 37-51, 54-66 and 69-85 are now pending in the application.

Rejections Under 35 U.S.C. § 102

Within the Office Action, Claims 1-18 and 20-85 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,341,316 to Kloba et al. (hereinafter "Kloba"). The Applicant respectfully disagrees.

Kloba teaches a system, method, and computer program product for synchronizing content between a server and a client based on state information. Kloba teaches systems for enabling web content to be loaded on mobile devices, and for users of devices to operate with such web content on their mobile devices in an interactive manner while in an off-line mode. [Kloba, Abstract] Kloba teaches that the mobile device is placed into an adapter to synchronize a mobile client with a server. [Kloba, col. 5, lines 41-52] Kloba does not teach a middleware filter that filters the content and sends only filtered content to a device. Kloba merely teaches that selected content is sent to the mobile device during a synchronization process. Kloba does not teach that content is filtered based on meta data contained within the content. Further, Kloba does not teach that the middleware filter selectively filters meta data comprising a data type of the content.

In contrast to the teachings of Kloba, the middleware filter agent of the presently claimed invention, selectively filters the content provided by the content server *in response to meta data contained within the content* such that only selected content is provided to a first network device. A content server provides content to the first network device during a data synchronization between the two devices. The middleware filter selectively filters the content provided by the content server such that selected content is provided to the first network device. The middleware filter is preferably included within a second network device coupled between the content server and the first network device. In this manner, the second network device acts as a proxy for the first network device to receive the content provided by the content server. In an alternative embodiment, the content server is coupled to the first network device, without the second

network device coupled in between. The middleware filter is included within the content server, and the content is selectively provided from the middleware filter, on the content server, to the first network device. As described above, Kloba does not teach a middleware filter that filters the content and sends only filtered content to a device, *wherein the content is filtered based on meta data contained within the content*. Kloba merely teaches that selected content is sent to the mobile device during a synchronization process. As further described above, Kloba does not teach that the middleware filter selectively filters meta data comprising a data type of the content.

Within the Office Action, it is asserted that the server 104 and providers 128 of Kloba correspond to the claimed middleware filter and content server, respectively. The claimed limitations are directed to a content server that stores content and to a middleware filter that receives content from the content server and selectively filters that received content *in response to metadata within the content*, thereby resulting in filtered content. The filtered content is then sent from the middleware filter to the first network device. Within the Response to Arguments section, col. 14, lines 46-50 of Kloba is cited and it is concluded that this section of Kloba teaches “filtering content and sending only the filtered content by sending changed objects.” As the claimed middleware filter receives content and selectively filters that content to form filtered content, it is concluded that since the server 104 corresponds to the middleware filter, the server 104 of Kloba receives content and selectively filters that content to form filtered content. However, this conclusion is not supported by the cited portion of Kloba. In fact, the term “meta data” does not appear anywhere within the description of Kloba. In the office action, Col. 6, lines 40-60 of Kloba is cited to show that Kloba teaches content sent by the content server includes Meta Data. However, Kloba does not teach *filtering content in response to meta data contained within the content*. At Col. 6, lines 27-35, Kloba teaches:

[o]n the server, the graphic is optimized per the state information of the device. If the device sends down the need for the graphic on a page for a device with a display that is 27 cm wide and in grayscale, the server sends its best version of a graphic optimized for that environment. The technology of the invention is extended by tags on HTML pages that *identify content that is designed for additional modifications*. Any and all bytes processed by the server are potentially examined for compression/optimization. The server detects the tag and executes the necessary logic. [Kloba, Col. 6, lines 27-35, Emphasis Added]

There is no indication that all objects associated with a given channel are sent to the server 104, and that the server 104 then *filters those objects in response to meta data within the objects* to form a set of only changed objects. Column 14, line 64 to column 15, line 2 of Kloba is also cited and it is then concluded that Kloba teaches “the server 104, which corresponds to the

claimed middleware filter, receiving multiple objects and sending only objects that have changed to the client 108, which corresponds to the claimed first network device.”

As with the previous citation, there is no indication that all objects associated with a given channel are sent to the server 104, and that the server 104 then filters those objects to form a set of only changed objects. The above citations merely indicate that the server 104 “identifies” any changed objects, and that the server 104 sends those identified objects to the client 108. This begs the question, is the selective filtering of the changed objects from the set of all objects for a given channel occurring at the server 104 or at the providers 128, and on what information is the selective filtering based? Kloba teaches that the server 104 functions merely as a pass-through device, functioning as an interface to the data provided by the providers 128. It is taught at Col. 7, line 66 to column 8, line 5 of Kloba that:

[d]uring a synchronization process, the server 104 loads a device 108 with the channels associated with the client 108. Generally, the server 104 does this by obtaining from providers 128 the objects defined by the channels, and causing those objects to be stored on the client 108. Thus, during the synchronization process, the server 104 will load the client 108 with the selected channels. More particularly, the server 104 will load the client 108 with the objects associated with the channels. [Kloba, Col. 7, line 66 - Col. 8, line 5, Emphasis added]

Again, there is no indication that all objects for a given channel are loaded onto the server 104, and that the server 104 then selectively filters the objects *based on meta data within the content to form filtered content* (changed objects). The implication is that the server 104 determines what filtered content (changed objects) are to be sent from the providers 128 to the client 108 (via the server 104), but the actual objects (claimed content to be filtered) for the entire channel are not sent to the server 104.

In general, Kloba teaches a conventional data synchronization process where only data that is new or changed from the data already stored on a client is transmitted, thereby “synching” the client data to the source data. In this sense, the process of Kloba performs a single filtering process. In contrast, the claimed network and method implement a double filtering process. First is the conventional data synchronization step where the content server determines updated or new content to be sent to the client. Second is the further filtering of that determined content data, where this further filtering is performed by the middleware filter. This further filtering is performed on the actual data sent as part of the first filtering step (data synchronization). The actual data is physically received at the middleware filter, where it is selectively filtered to form filtered content.

Specifically, the independent Claim 1 is directed to a network of devices to filter synchronized data. The network of devices of Claim 1 comprises a content server to store content, a first network device and a middleware filter coupled to the first network device and to the content server such that during a data synchronization, content is received by the middleware filter from the content server according to the data synchronization and the *middleware filter is programmed to selectively filter the content resulting in filtered content* and send only the filtered content to the first network device, wherein the middleware filter selectively filters in response meta data within the content, wherein the meta data comprises a data type of the content. As described above, Kloba does not teach *content is received by the middleware filter from the content server, filtering the content and sending only filtered content* to a device. Kloba merely teaches that *selected content* is sent from a content provider 128, through the server 104, and to the client device 106 during a synchronization process. As also described above, Kloba does not teach that content is filtered based on meta data contained within the content. Further, Kloba does not teach that the middleware filter selectively filters meta data comprising a data type of the content. For at least these reasons, the independent Claim 1 is allowable over the teachings of Kloba.

By the above amendments, Claims 2 and 3 have been canceled. Claims 4-18 are all dependent on the independent Claim 1. As described above, the independent Claim 1 is allowable over the teachings of Kloba. Accordingly, Claims 4-18 are all also allowable as being dependent on an allowable base claim.

The independent Claim 20 is directed to a network of devices to filter synchronized data. The network of devices of Claim 20 comprises a content server to store content, a personal digital assistant and a personal computer coupled to the personal digital assistant and to the content server, wherein the personal computer includes a middleware filter programmed such that during a data synchronization, *content received by the personal computer* from the content server according to the data synchronization is *selectively filtered according to the middleware filter, resulting in filtered content*, wherein only filtered content is sent to the personal digital assistant by the personal computer, wherein the middleware filter selectively filters in response meta data within the content, wherein the meta data comprises a data type of the content. As described above, Kloba does not teach *content is received by the middleware filter from the content server, filtering the content and sending only filtered content* to a device. Kloba merely teaches that *selected content* is sent from a content provider 128, through the server 104, and to the client device 106 during a synchronization process. As also described above, Kloba does not teach that content is filtered based on meta data contained within the content. Further, Kloba

does not teach that the middleware filter selectively filters meta data comprising a data type of the content. For at least these reasons, the independent Claim 20 is allowable over the teachings of Kloba.

By the above amendments, Claims 21 and 22 have been canceled. Claims 23-33 are all dependent on the independent Claim 20. As described above, the independent Claim 20 is allowable over the teachings of Kloba. Accordingly, Claims 23-33 are all also allowable as being dependent on an allowable base claim.

The independent Claim 34 is directed to a method of filtering synchronized data. The method of Claim 34 comprises determining content to be sent from a content server to a first network device during a data synchronization, *sending the content from the content server to a second network device* coupled between the content server and the first network device, wherein the second network device includes a *middleware filter, selectively filtering the content* according to the middleware filter in response to meta data contained within the content, wherein the meta data comprises a data type of the content, and sending the filtered content from the second network device to the first network device. As described above, Kloba does not teach *content is received by the middleware filter from the content server, filtering the content and sending only filtered content* to a device. Kloba merely teaches that *selected content* is sent from a content provider 128, through the server 104, and to the client device 106 during a synchronization process. As also described above, Kloba does not teach that content is filtered based on meta data contained within the content. Further, Kloba does not teach that the middleware filter selectively filters meta data comprising a data type of the content. For at least these reasons, the independent Claim 34 is allowable over the teachings of Kloba.

By the above amendments, Claims 35 and 36 have been canceled. Claims 37-50 are all dependent on the independent Claim 34. As described above, the independent Claim 34 is allowable over the teachings of Kloba. Accordingly, Claims 37-50 are all also allowable as being dependent on an allowable base claim.

The independent Claim 51 is directed to a method of filtering synchronized data. The method of Claim 51 comprises determining content to be sent from a content server to a first network device during a data synchronization, wherein the content server includes a middleware filter, *selectively filtering the determined content* according to the *middleware filter* in response to meta data contained within the content, wherein the meta data comprises a data type of the content, and *sending the filtered content* from the content server to the first network device. As described above, Kloba does not teach *content is received by the middleware filter from the content server, filtering the content and sending only filtered content* to a device. Kloba merely

teaches that *selected content* is sent from a content provider 128, through the server 104, and to the client device 106 during a synchronization process. As also described above, Kloba does not teach that content is filtered based on meta data contained within the content. Further, Kloba does not teach that the middleware filter selectively filters meta data comprising a data type of the content. For at least these reasons, the independent Claim 51 is allowable over the teachings of Kloba.

By the above amendments, Claims 52 and 53 have been canceled. Claims 54-65 are all dependent on the independent Claim 51. As described above, the independent Claim 51 is allowable over the teachings of Kloba. Accordingly, Claims 54-65 are all also allowable as being dependent on an allowable base claim.

The independent Claim 66 is directed to an apparatus to filter synchronized data wherein the apparatus includes a middleware filter programmed such that during a data synchronization, *content is received by the apparatus from a content server* according to the data synchronization and the *received content is selectively sent* to a network device by the apparatus according to the middleware filter, wherein the received content is selectively sent in response to meta data within the selected content, wherein the meta data comprises a data type of the content. As described above, Kloba does not teach *content is received by the middleware filter from the content server, filtering the content and sending only filtered content* to a device. Kloba merely teaches that *selected content* is sent from a content provider 128, through the server 104, and to the client device 106 during a synchronization process. As also described above, Kloba does not teach that content is filtered based on meta data contained within the content. Further, Kloba does not teach that the middleware filter selectively filters meta data comprising a data type of the content. For at least these reasons, the independent Claim 66 is allowable over the teachings of Kloba.

By the above amendments, Claims 67 and 68 have been canceled. Claims 69-82 are all dependent on the independent Claim 66. As described above, the independent Claim 66 is allowable over the teachings of Kloba. Accordingly, Claims 69-82 are all also allowable as being dependent on an allowable base claim.

The independent Claim 83 is directed to an apparatus for filtering synchronized data. The apparatus of Claim 83 comprises means for determining content to be sent from a content server to a first network device during a data synchronization, means for *sending the content from the content server to a second network device* coupled between the content server and the first network device, wherein the second network device includes a middleware filter, means for *selectively filtering the content*, in response to meta data contained within the content, wherein the meta data comprises a data type of the content and means for sending the filtered content

from the second network device to the first network device. As described above, Kloba does not teach *content is received by the middleware filter from the content server, filtering the content and sending only filtered content* to a device. Kloba merely teaches that *selected content* is sent from a content provider 128, through the server 104, and to the client device 106 during a synchronization process. As also described above, Kloba does not teach that content is filtered based on meta data contained within the content. Further, Kloba does not teach that the middleware filter selectively filters meta data comprising a data type of the content. For at least these reasons, the independent Claim 83 is allowable over the teachings of Kloba.

The independent Claim 84 is directed to a network of devices to filter synchronized data. The network of devices of Claim 84 comprises a content server to store content, a first network device, wherein a communications channel is established for communicating content from the content server to the first network device and a middleware filter coupled to the first network device and to the content server such that during a data synchronization, all content sent over the communications channel from the content server is received by the middleware filter according to the data synchronization and the middleware filter is programmed to selectively filter the content in response to meta data within the content resulting in filtered content and send only the filtered content to the first network device, wherein the meta data comprises a data type of the content. As described above, Kloba does not teach *content is received by the middleware filter from the content server, filtering the content and sending only filtered content* to a device. Kloba merely teaches that *selected content* is sent from a content provider 128, through the server 104, and to the client device 106 during a synchronization process. As also described above, Kloba does not teach that content is filtered based on meta data contained within the content. Further, Kloba does not teach that the middleware filter selectively filters meta data comprising a data type of the content. For at least these reasons, the independent Claim 84 is allowable over the teachings of Kloba.

The independent Claim 85 is directed to a network of devices to filter synchronized data. The network of devices of Claim 85 comprises a content server to store content, a first network device and a second network device coupled between the first network device and the content server, the second network device comprising a middleware filter, such that during a data synchronization, content is received by the middleware filter from the content server according to the data synchronization and the middleware filter is programmed to selectively filter the content in response to meta data within the content resulting in filtered content and send only the filtered content to the first network device, wherein the meta data comprises a data type of the content, and further wherein the first network device and the second network device are local and the

content server is remote from the first network device and the second network device. As described above, Kloba does not teach *content is received by the middleware filter from the content server, filtering the content and sending only filtered content* to a device. Kloba merely teaches that *selected content* is sent from a content provider 128, through the server 104, and to the client device 106 during a synchronization process. As also described above, Kloba does not teach that content is filtered based on meta data contained within the content. Further, Kloba does not teach that the middleware filter selectively filters meta data comprising a data type of the content. For at least these reasons, the independent Claim 85 is allowable over the teachings of Kloba.

Rejections Under 35 U.S.C. § 103

Within the Office Action, Claim 19 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kloba.

Claim 19 is dependent on the independent Claim 1. As described above, the independent Claim 1 is allowable over the teachings of Kloba. Accordingly, Claim 19 is also allowable as being dependent on an allowable base claim.

For the reasons given above, the applicant respectfully submits that the claims are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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